



CITY OF LODI COUNCIL COMMUNICATION

AGENDA TITLE: Receive report on risk management policies and adopt resolution approving policy entitled, "City of Lodi Energy Risk Management Policies" (EUD)

MEETING DATE: January 18, 2006

PREPARED BY Interim Electric Utility Director

RECOMMENDED ACTION: That the City Council receive the report on Risk Management Policies in use by comparison municipal utilities and adopt, by Resolution, the attached City of Lodi Energy Risk Management Policies.

BACKGROUND INFORMATION: The City Council has implemented a series of measures over the last three months, addressing the financial condition of the electric utility. The first effort was to secure sufficient energy supplies at a known cost in order to meet Lodi's load serving obligations to its customers and to ensure stable costs through the balance of the fiscal year. The second effort was to increase rates through an interim Market Cost Adjustment mechanism in order that sufficient revenues would be recovered from Lodi's customers to cover the costs of providing those services. The third step, which is in process, will be to transform the interim and temporary Market Cost Adjustment into a permanent rate structure that reflects Lodi's ongoing projected costs of operations. The fourth and final major element of activities addressing the financial condition of Lodi Electric is the preparation of a Risk Management Plan.


Issue:

Lodi Electric procures significant portions of its energy needs through market purchases. These market purchases include gas, which is converted to energy through Lodi's ownership interests in gas turbine projects and direct purchases of electricity from the market to fulfill Lodi's load serving obligations to its customers. Lodi has also sold surplus energy and capacity from time to time when it has found itself in a surplus condition.

Reliance on the market for a large percentage of Lodi's load serving obligations and the absence of comprehensive procurement strategies have lead to the need to procure energy in highly volatile markets and increased costs for purchased power. As a result, the City Council has requested that Lodi Electric prepare a Risk Management Policy and Procedure document that can be used to begin reducing the uncertainty and volatility that Lodi has experienced regarding its energy market transactions.

To fulfill that request, staff has accumulated Risk Management Policy and Procedure (RMPP) documents from the cities of Santa Clara, Palo Alto and Roseville as being representative of effective policies and procedures and has compared and contrasted the policies of those agencies in a white paper attached to this council communication. Based on this analysis, and review of the applicability of the policies of these agencies to Lodi's operations, staff has prepared the attached "Energy Risk Management Policies" for City Council review and approval.

APPROVED:


Blair King, City Manager

Discussion:

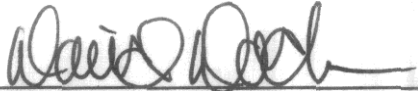
The Energy Risk Management Policy addresses the following items:

- A description of the purpose and scope of the policy
- Discussion of the risk management strategy and objectives
- Identification of risks the policy is intended to address
- Specification of allowed and prohibited transaction types
- Identification of the roles and responsibilities of oversight bodies and responsible staff
- Specification of reporting and transacting measures and controls
- Compliance criteria

Ideally, city staff charged with responsibility for transacting under this policy and/or charged with responsibility for acting in an oversight role under this policy would have been given significantly more time to review and participate in the development of this document than was able to be provided. As a result, should the City Council approve this policy, Council should direct that the Risk Oversight Committee (ROC) continue to review and refine this policy document and return to City Council with recommended changes within six months, or earlier if determined necessary by the ROC.

FISCAL IMPACT: No immediately measurable direct fiscal impact. Adoption of this policy will provide greater certainty of wholesale power supply costs and reduce exposure to a variety of energy procurement cost risks.

FUNDING: Not applicable



David Dockharn
Interim Electric Utility Director

DD/1st

Attachments (3)

cc: City Attorney

City of Lodi

Energy Risk Management Policies

January 7, 2006

Purpose:

The purpose of the Risk Management Program is to ensure that risks associated with Lodi's bulk power procurement program are properly identified, measured and controlled.

Scope:

The policies are to be applied to all aspects of Lodi's wholesale procurement and sales activities, long-term contracting associated with energy supplies, capital projects and associated financing documents related to generation, transmission, transportation or storage, and participation in Joint Powers Agencies (JPA's).

These policies do not address the following types of general business risk, which are treated separately in other official policies, ordinances, and regulations of the city: fire, accident and casualty, health, safety, workers compensation and other such typically insurable perils.

Risk Management Program Strategies:

1. Identify, measure and control risks that would have an adverse affect on retail rate stability
2. Assign risk management responsibilities to appropriately qualified individuals and committees

Risk Management Program Objectives:

1. Maintain a regularly updated inventory of Lodi's Bulk Power Procurement Program risks
2. Establish risk metrics and reporting mechanisms that provide both quantitative and qualitative assessments of potential impacts to rate stability
3. Adopt business practices that encourage development of appropriate levels of operating reserve funds, contribute to retail rate stability and maintain appropriate security for established funds

Risk Inventory:

Lodi Electric must inventory and address the following categories of risk as a component of the monitoring and reporting under the risk management program:

- Price Risk
- Credit Risk
- Operational Risk
- Contingent Liabilities

Price Risk – Price risk is the risk that wholesale prices may increase relative to open position needs and/or long term supply contracts may move “out of the money”, or become unprofitable or costly in comparison to prevailing price levels.

Credit Risk – Credit risk is the risk associated with entering into any type of transaction with another counterparty and is generally segmented into the following five categories:

1. Trading Counterparties and retail customers fail to pay for energy delivered
2. Trading counterparties and/or wholesale suppliers fail to deliver contracted for energy
3. Trading counterparties fail to take delivery of energy sold to them, necessitating a quick resale elsewhere, likely at a loss
4. Counterparties, may refuse to extend credit or charge a premium for credit risks
5. Counterparty transactions are too concentrated among a limited number of suppliers

Operational Risk – Operational risk consists of the potential to effectively plan, execute or control business activities. Operational risk includes the potential for:

1. Inadequate organizational infrastructure, i.e., the lack of sufficient authority to make and execute decisions, inadequate supervision, absence of internal checks and balances, incomplete and untimely planning, incomplete and untimely reporting, failure to separate incompatible functions, etc.
2. Absence, shortage or loss of key personnel
3. Lack or failure of facilities, equipment, systems and tools such as computers, software, communications links and data services;
4. Inability to finance capital projects or meet financial obligations incurred in the course of wholesale operations;
5. Exposure to litigation or sanctions as a result of violating laws and regulations, not meeting contractual obligations, failure to address legal issues and/or receive competent legal advice, not drafting contracts effectively, etc.
6. Errors or omissions in the conduct of business, including failure to execute transactions, violations of guidelines and directives, etc.

Contingent Liabilities – contingent liabilities consist of liabilities that Lodi could incur in the event of the failure of other parties to discharge their obligations. At present, these consist of three principle categories:

1. Guarantees and step up provisions in the enabling agreements for the Joint Powers Agencies (JPAs) of which the city is a member
2. Project closure, decommissioning, environmental remediation and other obligations which result from Lodi's own activities and from JPA projects and activities;
3. Provisions for take or pay, termination payments and/or margin calls in the city's long-term electric power supply agreements.

Prohibited and Authorized Transaction Types:

Prohibited Transaction Types

Speculative buying and selling of energy products is prohibited. Speculation is defined as buying energy that is not needed for meeting forecasted load, selling energy that is not owned and/or selling energy that is not surplus without simultaneously replacing that

energy at a lower cost. In no event shall transactions be entered into to speculate on market conditions.

Approved Transaction Types

1. Purchase energy to serve load above what is expected to be generated or purchased from existing resources.
2. Sell existing capacity or energy that is expected to be in excess of Lodi's load serving obligations
3. Purchase gas that is expected to be needed to fuel owned plants
4. Sell surplus gas if more economic energy is available for purchase
5. Execute financial transactions to fix the price of variable commodity purchases or sales
6. Purchase simple call options to limit price exposure on short gas or electricity positions
7. Sell simple call options or tolling agreements on capacity that is expected to be in excess of Lodi's load serving obligations
8. Purchase emissions allowances deemed necessary for efficient operations of owned generating facilities
9. Purchase or sell firm transmission rights to manage congestion price risk
10. A purchase/sale of energy at the California Oregon Border and a sale/purchase of energy at NP15 to take advantage of Lodi's transmission capacity
11. A purchase of natural gas and a sale of energy to take advantage of excess gas fired peaking capacity
12. A sale of natural gas and a purchase of electricity to take advantage of market heat rates below NCPA gas fired generation.

Transactions that are not included in the Approved Transactions Type list are prohibited, unless explicitly approved by the City Council.

Energy Risk Management Roles, Responsibilities and Organization:

City Council

The City Council is responsible for making high-level, broad policy and strategy statements as contained in the Energy Risk Management Policy document. The City Council adopts the Energy Risk Management Policies as developed and recommended by the Risk Oversight Committee and delegates the City Manager to execute it. The City Council will review the Energy Risk Management Policy every year. Additionally, the City Council shall receive reports quarterly from the City Manager regarding risk management activities. These reports will be provided to the Council within six weeks after the end of each calendar quarter.

City Manager

The City Manager has overall responsibility for executing and ensuring compliance with policy adopted by the City Council. The City Manager reports quarterly to the City Council regarding energy risk management activities.

Risk Oversight Committee (ROC)

The ROC shall include as voting members, the City Manager, Assistant City Manager, City Attorney and the Electric Utility Director; or in the case of their absence, their designees. The City Manager shall appoint the chair of the ROC. Additional non-voting members may be invited to participate on the ROC based on supporting expertise required by the ROC.

The ROC shall meet not less than once per month, or as otherwise called to order by the City Manager or City Council. The ROC shall keep minutes of all meetings and business transacted and shall appoint one of its members to perform this task. A quorum for the ROC to do business shall consist of all members or their designees. The ROC shall request attendance at its meetings by, and/or reports from, other persons as appropriate. The City Manager shall make regular reports to the City Council regarding business transacted by the ROC at such intervals and/or upon such occasions as the Council shall direct.

The ROC shall have the responsibility for ensuring that business is conducted in accordance with the Energy Risk Management Policies (ERMP). The ROC shall from time to time, adopt and bring current risk management business practices, defining in detail the internal controls, strategies and processes for managing risks associated with the adoption of those business practices. The ROC shall recommend to the City Council the categories of transactions permitted and set risk limits for those transactions. The ROC, with the approval of the City Manager, shall confirm the assignment of authority to execute wholesale trading transactions, and administer retail accounts, supply contracts, capital projects and JPA relationships.

Electric Department

The Electric Department shall participate on the ROC through the Electric Utility Director. The Electric Utility Director shall provide load forecast information and coordinate the receipt and dissemination of relevant market and transactional information undertaken on Lodi's behalf through NCPA.

Finance Department

The Finance Department shall participate on the ROC through the Assistant City Manager and provide accounting and cash flow information to the ROC.

Legal Department

The Legal Department shall participate on the ROC through the City Attorney and provide legal advice and representation and ensure that business is carried out in compliance with all applicable laws, regulations and executive court orders.

Reporting

Quarterly reports shall be provided to the City Council, which provide detail on the City's forward purchases, market exposure, credit exposure, transaction compliance and other relevant data.

Quarterly Reports shall include:

- Load and Resource balances as forecast and adopted in the current operating years budget
- Load and Resource balances as adjusted due to operating conditions or purchases occurring during the quarter
- An assessment of market exposure
- An assessment of the quarterly change in power supply cost from budget
- Credit Exposure by counterparty
- A summary of any purchases made during the quarter
- An assessment of any counterparty credit problems

Transaction Limits and Controls

For transactions executed on behalf of Lodi through NCPA, trade authorization levels, counterparty credit limits and minimum counterparty rating criteria shall be as described in NCPA's "Trade and Risk Management 1999 Interim Policies, Processes and Procedures (RMPP)", which are made a part of this document, and attached hereto.

Material changes to NCPA's RMPP shall be reported to the City Council as part of the quarterly reporting under Lodi's Energy Risk Management Policy.

For transactions executed on behalf of Lodi through NCPA, the City Manager and the Electric Utility Director shall have the authority to direct NCPA to enter into purchase agreements under authority granted by the City Council, by Resolution. The Resolution shall specify the limits of the authority delegated, including the maximum dollar amount of the authority and the duration of the contracts and/or transactions that may be executed under the delegation of authority.

Because NCPA cannot enter into agreements on behalf of pooling members for longer than one year, power supply contracts that have terms longer than one year, or that begin delivery more than one year into the future must be executed directly by Lodi.

For transactions executed directly by Lodi, the City Manager and the Electric Utility Director shall have the authority to enter into purchase agreements under authority granted by the City Council, by Resolution.

The Resolution shall specify the limits of the authority delegated, including the maximum dollar amount of the authority and the duration of the contracts and/or transactions that may be executed under the delegation of authority.

Any resolution delegating authority to the city manager to contract for electricity shall specify generally at least the following terms and conditions and the description of energy and energy services to be procured, including, but not limited to, on-peak and off-peak energy and ancillary services; term, specifying a not-to-exceed period of time; period of delivery denoted in years or months; and point of delivery on the locus on the interstate transmission system on which the delivery is made.

Any delegation of authority to contract for gas shall specify generally at least the following terms and conditions; quantity and the description of gas services to be procured, including but not limited to scheduled gas and gas transportation services, specifying a not-to exceed period of time; period of delivery denoted in years or months or years and months; and point of delivery of the locus on the interstate transmission system at which the transfer of title is made.

For contracts executed directly by the City, the City shall use standardized form contracts for the procurement of gas and electricity, as practicable, including, but not limited to form contracts created and copyrighted by the Edison Electric Institute, the Western States Power Pool, and the North American Energy Standards Board. Unless waived by resolution of the City Council, a counterparty shall obtain and maintain during the term of the contract, the minimum credit rating established as of the date of award of the contract of not less than a BBB- credit rating established by Standard and Poor's and a Baa3 credit rating established by Moody's Investors Services.

All procurement of gas and electricity by contract shall conform to the requirements of the Energy Risk Management Policies.

Compliance

Compliance exceptions are actions, which violate the authority limits, requirements or directives set forth in the Energy Risk Management Policy. All exceptions shall be reported immediately to the City Manager and quarterly to the City Council in the quarterly exception report.

Willful violations of the Energy Risk Management Policy will be subject to review and may be cause for discipline or dismissal.

Risk Management White Paper for Lodi Electric

Background:

The city council has implemented a series of measures over the last three months, addressing the financial condition of the electric utility. The first effort was to secure sufficient energy supplies at a known cost in order to meet Lodi's load serving obligations to its customers and to ensure stable costs through the balance of the fiscal year. The second effort was to increase rates through an interim Market Cost Adjustment mechanism in order that sufficient revenues would be recovered from Lodi's customers to cover the costs of providing those services. The third step, which is in process, will be to transform the interim and temporary Market Cost Adjustment into a permanent rate structure that reflects Lodi's ongoing projected costs of operations. The fourth and final major element of activities addressing the financial condition of Lodi Electric is the preparation of a Risk Management Plan. This white paper is intended to a) identify the key elements of a Risk Management Plan b) compare and contrast the Risk Management policies and procedures in use at other municipal utilities, c) to suggest an initial and preliminary set of Risk Management Policies and Procedures that could be put in place by Lodi Electric, d) to identify future actions that should be considered by the city council in order to migrate from an initial, preliminary set of Risk Management Policies and Procedures to a more permanent set of Risk Management Policies and Procedures, and e) assist the council as it considers which Risk Management Policies and Procedures would be useful for Lodi.

Issue:

Lodi Electric procures significant portions of its energy needs through market purchases. These market purchases include gas, which is converted to energy through Lodi's ownership interests in gas turbine projects and direct purchases of electricity from the market to fulfill Lodi's load serving obligations to its customers. Lodi has also sold surplus energy and capacity from time to time when it has found itself in a surplus condition.

Reliance on the market for a large percentage of Lodi's load serving obligations and the absence of comprehensive procurement strategies have lead to the need to procure energy in highly volatile markets and increased costs for purchased power. As a result, the City Council has requested that Lodi Electric prepare a Risk Management Policy and Procedure document that can be used to begin reducing the uncertainty and volatility that Lodi has experienced regarding its energy market transactions.

Staff has accumulated Risk Management Policy and Procedure (RMPP) documents from the cities of Santa Clara, Palo Alto and Roseville as being representative of effective policies and procedures. A key feature of these policies and procedures is that they were originally developed through a committee structure (meaning several key personnel were involved in the drafting, review and approval process) and they have been continually updated and refined over time based on experience (both good and bad). A major benefit of the committee drafting method is the education and increased level of understanding that occurs throughout the organization regarding all aspects of the Risk Management

Program criteria as opposed to the knowledge being vested with a single person when drafted in singular fashion. While this white paper will attempt to set forth a compelling first draft of recommended policies and procedures, a committee of individuals throughout the organization should ultimately be assembled to refine, critique, understand and update the document.

A second major feature of these documents is that they are written with the acknowledgement that these cities will be entering into transactions on their own account, meaning they will directly negotiate deals with counterparties and execute the transactions, which requires an organizational risk management structure that can support these activities. In Lodi's case, it is anticipated that NCPA would negotiate the deals, execute the agreements and have the appropriate organizational infrastructure and staff in place to support this element of a risk management program, however, Lodi would still need to have an organizational structure in place that was sufficient to review and approve the actions taken by NCPA or to provide direction to NCPA to enter into a particular transaction on Lodi's behalf. Even though these cities take a more active role in initiating and consummating energy transactions than Lodi is likely to experience, the Risk Management Policies and Procedures prepared by these cities can provide significant guidance to Lodi as Lodi develops its own program, and associated policies and procedures.

Elements of the Risk Management Program:

In comparing the Risk Management Programs from the three cities, all have the following elements as features of the overall program:

- A description of the purpose and scope of the policy
- Discussion of the Risk Management strategy and objectives
- Identification of risks the policy is intended to address
- Specification of allowed and prohibited transaction types
- Identification of the Roles and Responsibilities of oversight bodies and responsible staff
- Specification of reporting and transacting measures and controls
- Compliance criteria

Comparison of Purpose and Scope Descriptions

Santa Clara

The Risk Management program is intended to be applied to all areas of Santa Clara's business including wholesale trading, retail marketing, long-term contracting, capital projects and participation in Joint Powers Agencies (JPA's). The regulations are intended to address market risks consisting of price risk, credit risk, regulatory risk, and contingent liabilities arising from Santa Clara's participation in the electricity markets in the western United States. The regulations explicitly exclude other general business risks such as fire, accident and health, workers compensation and other typically insurable perils.

Palo Alto

The Risk Management program is intended to detail the key control structures and policies for a sound risk management process based on sound utility risk management principles. The policies are applied to the electric, natural gas and telecommunications

business units. The policies are developed to address risks associated with wholesale and retail operations, capital projects related to generation, transportation, transmission or storage (not distribution projects), and participation in joint powers agencies. The policy specifically excludes general business risks such as fire, accident, casualty, workers comp, general liability and expressly excludes the electric and natural gas distribution business units.

Roseville

Roseville takes a slightly different angle in describing its purposes and scope, stating the Risk Management program is designed to ensure that general enterprise risks are properly identified, measured and controlled and that it is the general philosophy of Roseville to avoid unnecessary risks and to limit, to the extent practicable, risks assumed or retained to those with measurable outcomes that are within Roseville's risk tolerance.

Discussion of similarities and differences

There is little difference between the agencies in terms of defining the purpose and scope of their individual risk management programs. All have focused on bulk power program related risks to the organization as the primary purpose of the policy and Lodi should adopt the same approach.

Suggested Lodi Purpose and Scope Statements

Purpose: The purpose of the Risk Management Program is to ensure that risks associated with Lodi's bulk power procurement program are properly identified, measured and controlled.

Scope: The policies are to be applied to all aspects of Lodi's wholesale procurement and sales activities, long-term contracting associated with energy supplies, capital projects and associated financing documents related to generation, transmission, transportation or storage, and participation in Joint Powers Agencies (JPA's).

These policies do not address the following types of general business risk, which are treated separately in other official policies, ordinances, and regulations of the city: fire, accident and casualty, health, safety, workers compensation and other such typically insurable perils.

Comparison of Risk Management Strategies and Objectives

Santa Clara

Santa Clara identifies the following five strategies:

1. Maintaining an integrated and balanced portfolio of resources and obligations with built in hedges

2. Matching the resource position to market trends, i.e. long during periods of growth and rising prices and short in times of shrinkage and falling prices
3. Knowing and being an active participant in the electricity market place
4. Instituting and applying state of the art management techniques and processes
5. Assigning risk management responsibility to appropriately qualified people

Objectives are expressed through the following mission statements:

1. Assist in achieving the business objectives in the strategic plan
2. Discharge fiduciary responsibilities for assets of the City which are managed by SVP
3. Avoid losses which would materially impact the financial condition of SVP and the City
4. Sustain financial returns which are proportional to the risks taken and the capital invested
5. Facilitate the judicious pursuit of market opportunities by SVP
6. Encourage the development and maintenance of a corporate culture at SVP in which the proper balance is struck between control and facilitation and in which professionalism, discipline, technical skills and analytical rigor come together to achieve objectives.

Palo Alto

The city of Palo Alto expresses its Risk Management strategy as a philosophy by indicating “the basic premise underlying the City’s energy risk management attitude is that no activities related to energy purchase and sales should expose the City to the possibility of large financial losses in relation to the size of the electricity and gas reserve funds. They then go on to describe the objectives as follows:

1. Retail Rate Stability – mitigate market and credit risk by managing the risks inherent in the commodity markets in which CPAU participates and maintaining the safety of gas and electric reserve funds.
2. Preserve a supply cost advantage – reduce exposures to potential adverse energy price movements, enhance revenue by taking advantage of flexibility inherent in CPAU contracts and resources and enhance revenues by offering commodity products that address customer needs and adequately cover costs.
3. Efficient and Cost Effective Business Processes – staff will utilize business practices and controls that are sufficient to identify, evaluate and manage risks that are designed to streamline and minimize recording, analysis and reporting requirements.

Roseville

Roseville does not explicitly state its strategies or objectives in its risk management document, but does go into great detail on the tactics they will use to minimize risks. Tactics will be compared and addressed later in this white paper.

Discussion of Similarities and Differences

Each of the agencies approaches the development of strategies and objectives quite differently. In Santa Clara’s case, they have established a dispatch center; have surplus capacity in both generation and transmission and transmission connections to both the

southwest and the northwest. As a result, they want to be active participants in the market such that they can take advantage of price differences between the three markets (Pacific Northwest, California and Desert Southwest) themselves. Their strategy could be characterized as an offensive strategy, where they want to minimize risk, but they are willing to take some risk if there is an appropriate return associated with the risk. In order to accomplish this, they have assembled a staff that is sufficient to allow them effectively trade in the markets on a daily basis in addition to the capability to enter into short and long-term contracts. Palo Alto, on the other hand, has more of a defensive strategy, where their goal is to maintain preservation of rate stabilization fund balances and to maintain rate stability. In order to do this, Palo Alto has taken a long-term perspective, committing to series of short and long-term purchases at known prices, and does not actively participate in daily market transactions. Palo Alto has assembled the necessary staff that allows them to effectively plan, initiate and execute contracts for the short and long term purchases. Roseville fits between the Santa Clara and Palo Alto models. They are in the process of assembling staff that would allow them to move to more of the Santa Clara model, but in the interim, have engaged in financial transactions, prohibited under Palo Alto's defensive strategy, that in Roseville's view, have the appropriate risk to return tradeoffs.

Lodi's financial position and limited staffing requires that Lodi operate more in line with Palo Alto's defensive strategy by adopting practices that contribute to retail rate stability and preservation of Lodi's limited fund balance.

Suggested Lodi Strategies and Objectives

Strategies:

3. Identify, measure and control risks that would have an adverse affect on retail rate stability
4. Assign risk management responsibilities to appropriately qualified individuals and committees

Objectives:

4. Maintain a regularly updated inventory of Lodi's Bulk Power Procurement Program risks
5. Establish risk metrics and reporting mechanisms that provide both quantitative and qualitative assessments of potential impacts to rate stability
6. Adopt business practices that encourage development of appropriate levels of operating reserve funds, contribute to retail rate stability and maintain appropriate security for established funds

Comparison of Risk Inventories

Each of the documents go through a fairly extensive discussion of the utility specific risks that each of the cities face under the particular category of risk described. Discussion and development of these specific risks though a committee type setting is one of the most valuable educational processes that committee members and individuals charged with carrying out elements of the risk management program can undertake. The discussions invariably lead to an improved understanding of all of the elements of risk and frequently lead to improvements in the overall policies and procedures that would not have been realized if written by one individual. As part of Lodi's Risk Management program

development, additional committee work should continue to discuss and refine both the broad and specific categories of risk that are suggested for Lodi in this white paper.

Santa Clara

Santa Clara identifies the categories and subcategories of risk, defining them in the following fashion:

Market Risk:

Price Risk – wholesale trading positions, long – term supply contracts and generation resources may move out of the money, or become unprofitable or costly in comparison with similar positions, contracts or resources obtainable at present prices.

Credit Risk – any risk that SVP incurs as a result of selling to and buying from other entities. For example, counterparties and customers may fail to pay for energy delivered. Trading counterparties may fail to deliver contracted for energy. Counterparties may fail to take delivery of energy sold to them. Counterparties and suppliers may refuse to extend credit.

Regulatory Risk – risk that regulatory agencies, courts and legislatures may take which a) result in fines, assessments or other unrecoverable costs b) adversely affect market prices or liquidity, c) impairs the capability of trading counterparties, d) prevent SVP from performing to its own contractual obligations, e) interfere with SVP's generation, transmission or distribution operations or f) interfere with the City's ability to finance capital projects

Operational Risk – consists of the potential for failure to act effectively to plan, execute and/or control business activities.

Palo Alto

Palo Alto describes its risk inventory through its reporting mechanisms and the responsibilities that have been assigned to functional areas created under the risk management policies. For example Palo Alto has established the traditional "Front Office", "Mid – Office" and "Back Office" organizational structure and assigned the following responsibilities to individuals in those areas. The Front Office is responsible for resource planning and procuring energy supplies and services. This would encompass the "Operational Risk" and "Regulatory Risk" activities outlined in the SVP discussion above. The Mid Office is responsible for Controls and Reporting, incorporating elements such as review and reporting on portfolio exposure, credit exposure, transaction compliance, ongoing approval of counterparty credit and ongoing monitoring of compliance with policies, guidelines and procedures. This would encompass the "Market Risk" element as outlined in the SVP discussion above.

Roseville

Roseville takes a slightly different approach in outlining its risk inventory, spending more time on a narrative of the specific types of risks it is exposed to given its resource/fuel mix and its location on the grid in California. The more detailed description of Roseville's specific risks can also be segmented into the broad categories enumerated by SVP:

- Price Risk
- Credit Risk
- Operational Risk
- Regulatory Risk

Discussion of similarities and differences in the risk inventory

The categories of risk being considered by three agencies are virtually identical, and would be the same for Lodi as well. Where the differences arise are in the level of activity undertaken by the various agencies and resulting volumetric risk associated with those undertakings. As an example, if Santa Clara is in the market on a daily basis, they may interact with numerous counterparties and have a need to review credit risk with a large number of counterparties frequently. Palo Alto, on the other hand, may transact with fewer counterparties due to their use of longer-term contracts, and would therefore need to monitor a smaller number of credit risks. NCPA, on behalf of Lodi would perform the routine credit monitoring function as NCPA is in the market on a daily basis, but Lodi would still want to be reviewing and be cognizant of the credit status of any counterparty to a long term supply agreement with Lodi. Similarly, until Lodi is able to close large open supply positions, Lodi will be subject to greater price risk than the three comparison agencies and Lodi policy makers will want to know how that risk is being managed over the course of the year. For purposes of the risk inventory, Lodi should utilize the same broad categories of risk and focus its reporting and measurement on those risk factors that have the greatest chance of preventing Lodi from meeting the strategies and objectives of the risk management plan.

Suggested Lodi Risk Inventory Elements

- Price Risk
- Credit Risk
- Operational Risk
- Contingent Liabilities

Price Risk – Price risk is the risk that wholesale prices may increase relative to open position needs and/or long term supply contracts may move “out of the money”, or become unprofitable or costly in comparison to prevailing price levels.

Credit Risk – Credit risk is the risk associated with entering into any type of transaction with another counterparty and is generally segmented into the following five categories:

6. Trading Counterparties and retail customers fail to pay for energy delivered
7. Trading counterparties and/or wholesale suppliers fail to deliver contracted for energy
8. Trading counterparties fail to take delivery of energy sold to them, necessitating a quick resale elsewhere, likely at a loss
9. Counterparties, may refuse to extend credit or charge a premium for credit risks
10. Counterparty transactions are too concentrated among a limited number of suppliers

Operational Risk – Operational risk consists of the potential to effectively plan, execute or control business activities. Operational risk includes the potential for:

7. Inadequate organizational infrastructure, i.e., the lack of sufficient authority to make and execute decisions, inadequate supervision, absence of internal checks and balances, incomplete and untimely planning, incomplete and untimely reporting, failure to separate incompatible functions, etc.
8. Absence, shortage or loss of key personnel

9. Lack or failure of facilities, equipment, systems and tools such as computers, software, communications links and data services;
10. Inability to finance capital projects or meet financial obligations incurred in the course of wholesale operations;
11. Exposure to litigation or sanctions as a result of violating laws and regulations, not meeting contractual obligations, failure to address legal issues and/or receive competent legal advice, not drafting contracts effectively, etc.
12. Errors or omissions in the conduct of business, including failure to execute transactions, violations of guidelines and directives, etc.

Contingent Liabilities – contingent liabilities consist of liabilities that Lodi could incur in the event of the failure of other parties to discharge their obligations. At present, these consist of three principle categories:

4. Guarantees and step up provisions in the enabling agreements for the Joint Powers Agencies (JPAs) of which the city is a member
5. Project closure, decommissioning, environmental remediation and other obligations which result from Lodi's own activities and from JPA projects and activities;
6. Provisions for take or pay, termination payments and/or margin calls in the city's long-term electric power supply agreements.

Comparison of allowed and prohibited transactions

Santa Clara

Santa Clara authorizes the purchase and sale of electricity subject to specific criteria. For example, individual employees are assigned specific transaction limits and are prohibited from trading on their own account. The authorities to transact are further limited in term length and by aggregate credit exposure and volumetric limits with the transacting counterparties. Subject to these qualifications, Santa Clara authorizes the following types of transactions:

1. Contracts made for forward or real-time receipt or delivery of electricity
2. Contracts for the provision of electrical transmission and ancillary services, either forward or real time
3. Simple options to sell (puts) and options to buy (calls) electricity directly to and from SVP and trading counterparties at a future date, denominated by volume and to commence not later than the fourth calendar month following the date of the sale or purchase of the option; and
4. Swaps consisting of offsetting purchases and sales of electricity at different delivery points, simultaneously, under two separate contracts
5. Purchase of fuels for operation of generating facilities or maintenance of fuel storage as required to support the supply of power, maintain system reliability and provide ancillary services, in order to meet customer needs or contractual or regulatory obligations;
6. Resale of surplus fuels and transportation capacity
7. Price hedging of fuel supplies by the purchase or sale of forward or futures contracts and simple put or call options for quantities commensurate with actual operating requirements

8. Price hedging of fuel transportation by the purchase or sale of forward capacity contracts, basis swaps, and simple put or call options for quantities commensurate with actual operating requirements.

Palo Alto

Palo Alto prohibits speculative buying and selling of energy products where “speculation” is defined as buying or selling energy not needed for meeting load or selling energy that is not owned. Palo Alto provides further prohibitions against entering into transactions to speculate on market conditions.

Products allowed for electric transactions include purchases of energy, capacity, transmission and ancillary services. Products allowed for natural gas transactions include energy, transportation, and storage. Only physical transactions are allowed. Palo Alto’s policy differs dramatically from both Santa Clara’s and Roseville’s policies in this regard, where both Santa Clara and Roseville allow for financial transactions (e.g. purchase and sale of options) to hedge risk.

Roseville

Roseville policies regarding approved transaction types are very consistent with Santa Clara’s, allowing for transaction types necessary to meet load serving obligations, prohibiting transaction types that would be of a speculative nature and limiting financial types of transactions to simple financial trades that lower costs or prevent increases in costs. Specific approved transaction types are described below:

1. Purchase energy to serve load above what is expected to be generated or purchased from existing resources.
2. Sell existing capacity or energy that is expected to be in excess of Roseville’s load requirements
3. Purchase gas that is expected to be needed to fuel owned plants
4. Sell surplus gas if more economic energy is available for purchase
5. Execute financial transactions to fix the price of variable commodity purchases or sales
6. Purchase call options to limit price exposure on short gas or electricity positions
7. Sell call options or tolling agreements on capacity that is expected to be in excess of Roseville’s load serving obligations
8. Purchase a “floor” to limit price exposure on long gas or electricity positions
9. Sell call options or tolling agreements on capacity that is expected to be in excess of RE’s resource requirements
10. Purchase a “floor” to limit price exposure on long gas or power positions
11. Sell a “floor” to offset a portion of the price of the purchase of call options listed above
12. Purchase emissions allowances deemed necessary for efficient operations of owned generating facilities
13. Purchase or sell firm transmission rights to manage congestion price risk
14. A purchase/sale of energy at the California Oregon Border and a sale/purchase of energy at NP15 to take advantage of RE’s transmission capacity
15. A purchase of natural gas and a sale of energy to take advantage of excess gas fired peaking capacity

16. A sale of natural gas and a purchase of electricity to take advantage of market heat rates below RE or NCPA gas fired generation.

Discussion of approved and prohibited transactions

There is little difference between the agencies in terms of what is allowed versus not allowed. All agencies focus on providing the tools needed to meet the agency's load serving obligation and prohibit transactions that are entered into for purely speculative reasons. The one primary difference between the agencies is that Palo Alto prohibits any type of financial transaction, including simple call and put options, whereas both of the other agencies allow for the purchase and sale of simple puts and calls.

Suggested Lodi language for allowed and prohibited transactions

Prohibited Transaction Types

Speculative buying and selling of energy products is prohibited. Speculation is defined as buying energy that is not needed for meeting forecasted load, selling energy that is not owned and/or selling energy that is not surplus without simultaneously replacing that energy at a lower cost. In no event shall transactions be entered into to speculate on market conditions.

Approved Transaction Types

13. Purchase energy to serve load above what is expected to be generated or purchased from existing resources.
14. Sell existing capacity or energy that is expected to be in excess of Lodi's load serving obligations
15. Purchase gas that is expected to be needed to fuel owned plants
16. Sell surplus gas if more economic energy is available for purchase
17. Execute financial transactions to fix the price of variable commodity purchases or sales
18. Purchase simple call options to limit price exposure on short gas or electricity positions
19. Sell simple call options or tolling agreements on capacity that is expected to be in excess of Lodi's load serving obligations
20. Purchase emissions allowances deemed necessary for efficient operations of owned generating facilities
21. Purchase or sell firm transmission rights to manage congestion price risk
22. A purchase/sale of energy at the California Oregon Border and a sale/purchase of energy at NP15 to take advantage of Lodi's transmission capacity
23. A purchase of natural gas and a sale of energy to take advantage of excess gas fired peaking capacity
24. A sale of natural gas and a purchase of electricity to take advantage of market heat rates below NCPA gas fired generation.

Transactions that are not included in the Approved Transactions Type list are prohibited, unless explicitly approved by the City Council.

Comparison of the roles and responsibilities of oversight bodies and responsible staff

Santa Clara

Santa Clara has established roles and responsibilities for the following committees and individuals:

- City Council
- City Manager
- Risk Oversight Committee (ROC)
- Risk Management Committee (RMC)
- Risk Management Sub Committees
- Risk Management Divisions
- Power Trading Division (Front Office Personnel)
- Power Trading Division (Back Office Personnel)
- Electric Marketing
- Electric Generation and Transmission Project Management
- Electric Contract Administration
- Joint Action Coordination Division

A complete description of the roles and responsibilities of each committee and individual can be found in the document “Market Risk Management Regulations Draft Rev 5 [5-9-03]”. For the purposes of this comparison, only the City Council, City Manager, Risk Oversight Committee and Risk Management Committee will be discussed.

Under the Risk Management Policy, the City Council assigns the City Manager to implement the Risk Management Program. The City Manager then has the overall responsibility for implementing the Risk Management Program, including delegating specific duties for carrying out the policy and ensuring compliance with it by all affected City Employees and temporaries.

The Risk Oversight Committee is made up of voting members including: the City Manager, Director of Finance, City Attorney and the Electric Utility Director. The ROC meets at least quarterly, keeps minutes of its meetings and is charged with the following responsibilities:

- Ensuring that business is conducted in accordance with Risk Management Policies
- Updating/Modifying Risk Management Regulations
- Determining the type of permitted transactions
- Establishing authorization limits

The Risk Management Committee (RMC) is made up of eight members: the Assistant Directors of the Electric Department for Marketing and Resources; the Assistant Director of Finance; the Division Managers for Power Trading and Risk Analysis; the Division Manager for Markets, Regulatory Affairs and Planning, the Back Office Manager and an Attorney designated by the legal department. The RMC meets at least two times per month, reviewing compliance with Risk Management Policies on a more frequent basis and provides recommendations for modifications or updates to Risk Management Regulations to the ROC for approval.

Palo Alto

Palo Alto has established roles and responsibilities for the following committees and individuals:

- City Council
- Utility Advisory Commission
- City Manager
- Risk Oversight Committee
- Management Oversight
 - Front Office – Planning and Procurement
 - Middle Office – Controls and Reporting
 - Back Office – Settlement and Recording

Like Santa Clara, the Palo Alto City Council delegates authority for implementing the Risk Management program to the City Manager. The City Council receives quarterly reports from the City Manager regarding energy risk management activities and reviews the total policy once each year.

The Risk Oversight Committee (ROC) consists of the Director of Utilities (chairperson), Director of Administrative Services, and the Assistant City Manager. The Senior Assistant City Attorney assigned to Utilities and the City Auditor act as non-voting advisors to the ROC. The ROC is charged with overseeing and reviewing the risk management process and infrastructure and managing the Utilities' risk exposure.

Roseville

Roseville's Risk Management Policies prescribe roles and responsibilities for:

- Risk Oversight Committee (ROC)
- Risk Management Committee (RMC)

The Risk Oversight Committee is comprised of appointees of the City Manager, among whom, may include a member of the City Council, a member of the Public Utilities Commission, the City Manager, Finance Director, City Attorney, Electric Utility Director and Assistant Electric Utility Directors for Power Supply and Administrative and Retail Services. The ROC meets quarterly and is responsible for:

- Establishing the budgeted power supply cost for the upcoming fiscal year and the fiscal years ending 24 months 60 months and 120 months from the commencement of the next fiscal year
- Adjusting credit limits up or down for qualified counterparties
- Recommending target unrestricted fund balances that can be used for the power supply function
- Review and monitor compliance with the Risk Management Policies

The Risk Management Committee is comprised of the City Manager, Finance Director, City Attorney, Electric Utility Director, and Assistant Electric Utility Directors for Power Supply and Administrative and Retail Services. This committee may also include an independent risk consultant. The RMC meets monthly and is charge with the following responsibilities:

- Ensuring compliance with Risk Management Policies and Procedures
- Monitoring Roseville's cash flow and liquidity needs
- Discussing hedging strategies and making recommendations for non-standard transactions to the ROC and City Council

- Discussing counterparty credit and recommending any change in credit limits to the ROC for approval

Discussion of Oversight Bodies and Responsible Staff

The primary similarity in the structure of the oversight bodies between the three agencies is the commitment of senior executive staff from the entire city organization to the risk oversight process. In all instances, the agencies include the city manager, finance director, electric utility director and city attorney in regular meetings to review compliance with risk management policies and procedures. Roseville takes the commitment a step further by including a member of the city council and a member of its advisory public utilities commission in the regular meetings of the risk oversight committees. Also, in all instances, the city councils of the agencies delegate the responsibility for implementing the policies to the city manager and then create a Risk Oversight Committee of senior executive city staff (and in one case including policy makers) to ensure that risk management policies and procedures are adhered to. Santa Clara and Roseville have created both a Risk Oversight Committee (ROC) and a Risk Management Committee (RMC). The Risk Oversight Committee meets quarterly, while the Risk Management Committee meets monthly. In Roseville's case, the city manager, finance director and city attorney (among other executive utility staff) sit on both the ROC and the RMC. In Santa Clara's case, the ROC includes the City Manager, City Attorney and Finance Director (among other utility executive staff) and meets quarterly, while the RMC includes subordinate executive staff from city departments (asst directors) and meets twice per month. Given the significantly greater number of staff available at the comparison agencies versus Lodi, Lodi should start with a single committee, the Risk Oversight Committee, and staff the committee with senior executive staff from throughout the city. Given the number of issues to be considered and the "in development" nature of the ROC, the committee should meet monthly.

Suggested Lodi Language for Oversight Bodies and Responsible Staff

City Council

The City Council is responsible for making high-level broad policy and strategy statements as contained in the Energy Risk Management Policy document. The City Council adopts the Energy Risk Management Policies as developed and recommended by the Risk Oversight Committee and delegates the City Manager to execute it. The City Council will review the Energy Risk Management Policy every year. Additionally, the City Council shall receive reports quarterly from the City Manager regarding risk management activities. These reports will be provided to the Council within six weeks after the end of each calendar quarter.

City Manager

The City Manager has overall responsibility for executing and ensuring compliance with policy adopted by the City Council. The City Manager reports quarterly to the City Council regarding energy risk management activities.

Risk Oversight Committee (ROC)

The ROC shall include as voting members, the City Manager, Assistant City Manager, City Attorney and the Electric Utility Director; or in the case of their absence, their

designees. The City Manager shall appoint the chair of the ROC. Additional non-voting members may be invited to participate on the ROC based on supporting expertise required by the ROC.

The ROC shall meet not less than once per month, or as otherwise called to order by the City Manager or City Council. The ROC shall keep minutes of all meetings and business transacted and shall appoint one of its members to perform this task. A quorum for the ROC to do business shall consist of all members or their designees. The ROC shall request attendance at its meetings by, and/or reports from, other persons as appropriate. The City Manager shall make regular reports to the City Council regarding business transacted by the ROC at such intervals and/or upon such occasions as the Council shall direct.

The ROC shall have the responsibility for ensuring that business is conducted in accordance with the Energy Risk Management Policies (ERMP). The ROC shall from time to time, adopt and bring current risk management business policies, defining in detail the internal controls, strategies and processes for managing risks associated with the adoption of those business practices. The ROC shall recommend to the City Council the categories of transactions permitted and set risk limits for those transactions. The ROC, with the approval of the City Manager, shall confirm the assignment of authority to execute wholesale trading transactions, and administer retail accounts, supply contracts, capital projects and JPA relationships.

Electric Department

The Electric Department shall participate on the ROC through the Electric Utility Director. The Electric Utility Director shall provide load forecast information and coordinate the receipt and dissemination of relevant market and transactional information undertaken on Lodi's behalf through NCPA.

Finance Department

The Finance Department shall participate on the ROC through the Assistant City Manager and provide accounting and cash flow information to the ROC.

Legal Department

The Legal Department shall participate on the ROC through the City Attorney and provide legal advice and representation and ensure that business is carried out in compliance with all applicable laws, regulations and executive court orders.

Comparison of reporting and transacting measures and controls

Santa Clara

Santa Clara does not specify the reports required under the risk management policy, but instead requires that meaningful summarization and accurate reporting of transactions and other activities be provided at regular intervals. The policy goes on to dictate that internal control measures adopted by the ROC shall be based on proven principles that meet the stringent requirements of financial institutions and ratings agencies. Among these requirements are segregation of duties between those individuals entering into a transaction and those individuals responsible for settlement or monitoring of the

transaction; regular independent compliance reviews to make sure the Energy Risk Management Policies are being followed; and a requirement of active participation by senior executives in risk management processes.

Santa Clara then goes on to set trading authority limits for individuals in the organization and aggregate credit limits for any one counterparty. The electric utility director is authorized to enter into individual transactions for up to 100 MW (approximately one quarter of Santa Clara's peak load) for a period not to exceed one year or for an equivalent number of mwhrs to be delivered over a period not to exceed two years. All larger and longer-term transactions require City Council approval.

Palo Alto

Palo Alto requires that quarterly reports be provided to the City Council, ROC and Utilities Advisory Commission, which provide details of the City's forward purchases, market exposure, credit exposure, transaction compliance and other relevant data. Palo Alto addresses the transacting and control measures by assigning the functions of quantitative analysis, compliance reviews, credit administration and management reporting to a group defined as "middle office" and assigning the responsibility for setting counterparty credit limits to the ROC. The City Manager has the authority to purchase and sell wholesale energy commodities for terms up to three years under open purchase contracts and the Director of Utilities is granted the authority to negotiate for the purchase and sale of energy commodities with the purchase and sale authority subject to the signature authority limits defined in the Municipal Code (currently \$250,000 per year). Separately, the City Manager is authorized to enter into transactions under master agreements, the terms of which have been pre-approved by the city council, where the authorizing resolution specifies the limits of the authority delegated, including the maximum dollar amount of the authority and the duration of the contracts and/or transactions that may be executed under the delegation of authority.

Roseville

Roseville specifies that reporting will be done on a weekly and monthly basis as follows:

Weekly Reports to the Risk Management Committee:

- Load and Resource Balance through the FY
- Fixed Price Energy Report
- Power Supply Cost Differential Report
- Credit Exposure by Counterparty
- Available Credit by Counterparty
- Roseville Liability by Counterparty
- Roseville Credit Available by Counterparty
- Collateral Changes
- Do Not trade Activity

Quarterly Reports to the Risk Oversight Committee

- Summary of Market and Load Changes
- Executed Transactions Summary
- Most recent weekly position report
- Most recent weekly credit report

The city manager and electric utility director are authorized to enter into qualified standard contracts where the maximum daily quantity does not exceed 50 MW's

(approximately one sixth of Roseville's peak load), has an expected dollar value of not more than \$40,000,000 and has a termination date that does not exceed five years. Roseville also establishes credit limits and minimum credit rating criteria for trading counterparties.

Discussion of reporting, transacting measures and controls

All three agencies require regular reporting. Both Palo Alto and Roseville require similar reports that detail forward purchases, market exposure and credit exposure and a statement of transaction compliance. Santa Clara does not specify the required reports in its policies, but it is known from discussions with Santa Clara staff that similar reports are provided to their ROC and RMC as are provided by Palo Alto and Roseville.

All three agencies also establish minimum counterparty credit rating levels, maximum credit exposure levels and maximum transaction level authorities for individuals within the respective organizations. As has been mentioned previously in this white paper, these three agencies initiate and execute transactions on their own account. Lodi on the other hand, typically executes transactions through NCPA. As a result, Lodi staff would typically be authorizing NCPA staff to enter into transactions on Lodi's behalf and those transactions would be subject to NCPA's risk management policies, credit limits and individual transaction authorization levels. NCPA and NCPA's counterparties would also need to have assurance that Lodi staff direction to NCPA to enter into a transaction on Lodi's behalf has been appropriately authorized by the City Council. That assurance is currently embodied in Resolution No. 2001 – 34 under which the City Manager and Electric Utility Director are authorized to approve energy purchase and sales transactions for a period up to ten (10) years. There are no limits on the dollar value of the purchases or sales or criteria specifying the credit requirements for counterparties. As a result, Resolution 2001 – 34 should be rescinded and replaced with a new authorizing resolution more reflective of the policies described above and Lodi should incorporate reporting, transacting and control measures that augment and incorporate risk management activities undertaken by NCPA on Lodi's behalf.

Suggested Lodi language for Reporting, Transacting Measures and Controls

Reporting

Quarterly reports shall be provided to the City Council, which provide details on the City's forward purchases, market exposure, credit exposure, transaction compliance and other relevant data.

Quarterly Reports shall include:

- Load and Resource balances as forecast and adopted in the current operating years budget
- Load and Resource balances as adjusted due to operating conditions or purchases occurring during the quarter
- An assessment of market exposure
- An assessment of the quarterly change in power supply cost from budget
- Credit Exposure by counterparty
- A summary of any purchases made during the quarter

- An assessment of any counterparty credit problems

Transaction Limits and Controls

For transactions executed on behalf of Lodi through NCPA, trade authorization levels, counterparty credit limits and minimum counterparty rating criteria shall be as described in NCPA's "Trade and Risk Management 1999 Interim Policies, Processes and Procedures (RMPP)", which are made a part of this document, and attached hereto.

Material changes to NCPA's RMPP shall be reported to the City Council as part of the quarterly reporting under Lodi's Energy Risk Management Policy.

For transactions executed on behalf of Lodi through NCPA, the City Manager and the Electric Utility Director shall have the authority to direct NCPA to enter into purchase agreements under authority granted by the City Council, by Resolution. The Resolution shall specify the limits of the authority delegated, including the maximum dollar amount of the authority and the duration of the contracts and/or transactions that may be executed under the delegation of authority.

Because NCPA cannot enter into agreements on behalf of pooling members for longer than one year, power supply contracts that have terms longer than one year, or that begin delivery more than one year into the future must be executed directly by Lodi.

For transactions executed directly by Lodi, the City Manager and the Electric Utility Director shall have the authority to enter into purchase agreements under authority granted by the City Council, by Resolution.

The Resolution shall specify the limits of the authority delegated, including the maximum dollar amount of the authority and the duration of the contracts and/or transactions that may be executed under the delegation of authority.

Any resolution delegating authority to the city manager to contract for electricity shall specify generally at least the following terms and conditions and the description of energy and energy services to be procured, including, but not limited to, on-peak and off-peak energy and ancillary services; term, specifying a not-to-exceed period of time; period of delivery denoted in years or months; and point of delivery on the locus on the interstate transmission system on which the delivery is made.

Any delegation of authority to contract for gas shall specify generally at least the following terms and conditions; quantity and the description of gas services to be procured, including but not limited to scheduled gas and gas transportation services, specifying a not-to exceed period of time; period of delivery denoted in years or months or years and months; and point of delivery of the locus on the interstate transmission system at which the transfer of title is made.

For contracts executed directly by the city, the City shall use standardized form contracts for the procurement of gas and electricity, as practicable, including, but not limited to form contracts created and copyrighted by the Edison Electric Institute, the Western States Power Pool, and the North American Energy Standards Board. Unless waived by

resolution of the City Council, a counterparty shall obtain and maintain during the term of the contract, the minimum credit rating established as of the date of award of the contract of not less than a BBB- credit rating established by Standard and Poor's and a Baa3 credit rating established by Moody's Investors Services.

All procurement of gas and electricity by contract shall conform to the requirements of the Energy Risk Management Policies.

Comparison of Compliance Criteria

Santa Clara

Santa Clara requires that exceptions to the policy be reported promptly and provides for independent review of activities as determined necessary.

Palo Alto

Palo Alto monitors all transactions to ensure compliance with Risk Management Policies and requires reporting of any exceptions.

Roseville

Exceptions to policy are required to be reported immediately. Willful acts of non-compliance may be cause for corrective action or dismissal. The Risk Oversight Committee may recommend an independent review of compliance if it deems it necessary or appropriate.

Suggested Lodi Language for Compliance Criteria

Compliance exceptions are actions which violate the authority limits, requirements or directives set forth in the Energy Risk Management Policy. All exceptions shall be reported immediately to the City Manager and quarterly to the City Council in the quarterly exception report.

Willful violations of the Energy Risk Management Policy will be subject to review and may be cause for discipline or dismissal.

NCPA Trade and Risk Management

1999 Interim Policies, Processes and Procedures

Background

The Commission of the Northern California Power Agency (NCPA) has instituted the adoption of formalized trade and risk policies, processes and procedures (3Ps) to assign risks to its Members and to minimize taking undue risks in the course of NCPA operations. To facilitate the timely development and maintenance of the 3Ps, the NCPA Commission directed the creation of a Risk Oversight Committee (ROC) to be comprised of NCPA Members and staff. The ROC reports to the NCPA General Manager.

In order to develop formal policies, processes and procedures, a comprehensive evaluation of existing NCPA agreements, processes, procedures and informal practices was performed. This evaluation included a comprehensive operational audit to determine the function and applicability of existing activities.

NCPA, as participant in the diverse larger electric market, is unique. The policies, processes and procedures developed by NCPA need to recognize that NCPA, as a joint action agency, necessarily has different operational objectives from the typical utility, consumer or marketer. While NCPA is an amalgamation of utility, consumer and marketer functions, it also carries out functions unique to those of a joint action agency.

A number of pooling Member-owners are developing their own Risk Management activities and desire that NCPA create a structure that allows them to manage their own resources in order to meet their individual financial objectives and minimize their net risk exposure.

Members who are developing their own Risk Management processes have also demonstrated a desire to retain the ability to coordinate like functions with NCPA. Members have also expressed concern about involuntary risk sharing among Member-owners.

This document contains the Interim policies, processes and procedure developed to cover NCPA activities until the full comprehensive trade and risk policies, processes and procedures (3Ps) are developed. The trade and risk policies, processes and procedures (3Ps) represents a “best effort” by the ROC and NCPA staff to:

- State the policy objectives as set by the Commission and introduce the Interim Policy – Section 1.
- Reflect the changes that have taken place in the procurement process to reduce exposure to market risks – as directed by the NCPA General Manager – Section 2; and establish a basis for a Member subscription process – Appendix 1.
- Formalize the delegation procedures and authority of the NCPA to trade on behalf of its Members and adopt a new audit and reporting process (good paper trail) – as recommended by the Operational Audit – Section 3.
- Manage credit risk – as recommended by the report on Trade and Risk Management and produce a list of qualified counterparties – Section 4.

1.0 NCPA Interim Trade and Risk Management Policy

1.1 Commission Risk Management Policy

It is the policy of the NCPA Commission that appropriate controls, practices, procedures, and reporting mechanisms be developed to assign risk to its Members and to minimize the taking of undue risk in the course of NCPA operations.

The overall goal of NCPA's Trade and Risk Management activities is to:

- Serve Members' needs subject to Member direction and Member-provided risk tolerance limits,
- Reduce the uncertainty of Member costs and revenue streams, and
- Enhance the value of NCPA assets to meet the financial requirements of participating Members within risk tolerance limits.

To achieve these risk management objectives, the NCPA Commission directs the creation of a Risk Oversight Committee (ROC) to be comprised of NCPA Members and staff. The ROC's responsibilities shall include:

1. Developing energy trading processes, procedures and limits;
2. Assuring that individual Members may set specific risk management instructions to be followed by NCPA;
3. Creating and administering a credit rating policy for business counterparties;
4. Approving the use and limits of specific financial risk management instruments;
5. Assuring that appropriate authority delegations are in place and followed;
6. Setting qualifying parameters and financial limits for business relationships with third party business partners;
7. Instituting appropriate and timely risk monitoring and regular reporting for use by the Commission and NCPA management; and
8. Identifying issues of interest to all or any NCPA Member and alerting Members of the issues.

1.2 The Need for Interim Policy

The ROC has identified the need for interim trade and risk policies, processes and procedures (3Ps) to guide NCPA's trading activities and until a full policy is developed, and particularly, during the heavy trading period of the summer of 1999.

This Interim Policy will come into effect upon approval by the NCPA Commission. Where there is a conflict between this policy and an existing practice or instruction this policy shall take precedent.

NCPA Members will have 90 days to provide the NCPA with their respective Boards authorization as required by Section 3.1.

NCPA staff will continue with the development of the full trade and risk policies, processes and procedures (3Ps), in consultation with the ROC, for submission to the NCPA General Manager.

2.0 Trade and Procurement Process

2.1 Trade and Procurement Policy

The primary purpose of NCPA resources is to serve Member loads in economic coordination with other power resources including the Members' Western entitlements and market purchases.

The trading, procurement and delivery of capacity/energy/fuel shall be consistent with NCPA Member physical and financial requirements and shall aim to enhance each Member's economic and competitive position within the specific guidelines provided by that Member and within the guidelines of this 3P document. The trade and procurement strategy will be identified and approved by Members during the Planning Process.

The philosophy behind the trading strategy is to stabilize revenues and minimize costs in the long-term and should not be directed or lead by short-term profit motives or opportunities.

The generating capability of an NCPA resource may be sold only when the capability is deemed to be surplus to the physical and financial requirements of its owner(s) or at the direction of the resource owner(s).

NCPA can only engage in Authorized Trading Activities with qualifying counterparties. The intent of all transactions at the time of execution should be exclusively for meeting Members physical, financial and hedging requirements.

With the exception of exchange traded (e.g. NYMEX, PX, ISO, etc.) transactions and real-time trading, all transactions require market price sampling (more than a single offer from one counterparty) from the market and qualifying counterparties. Alternatives are to be evaluated on an equivalent basis (similar quality, volume, duration and options), adjusted for such factors as transmission, losses, and other implementation costs as much as possible.

All forward transactions must have Member Subscription for the full transaction prior to execution. All relevant trading information is to be provided to the Mid and Back Office functions, as specified later in this document.

2.2 Guidelines for Implementation

2.2.1 Baseline Trading Strategy

The Planning Process aims at developing a Baseline Trading Strategy that reflects each Member's specific trade, risk management and procurement profile for the coming year. The process is iterative and requires coordination between NCPA and the staff of Member Utilities to establish the baseline trading strategy.

The primary objective of the Baseline Trading Strategy is to optimize the overall system operating cost of each Member relative to its Forward Price Curve while meeting the physical and financial requirements of the Members, within Member defined risk tolerances.

2.2.2 Baseline Trading Strategy Updates

The Baseline Trading Strategy is updated monthly to reflect the changing market and resource outlook, or more frequently as warranted by the changing conditions of the portfolio or risk exposure. The level of short term and spot market exposure will be continuously monitored and adjusted for Members' specific objectives and risk tolerance.

2.2.3 Authorized Trading Activities

1. Forward purchases and sales of capacity/energy/fuel to maintain Member energy balances, within specified objectives.
2. Forward purchases and sales of capacity/energy/fuel and related structured transactions to hedge system costs.
3. Forward purchases and sales of power/energy/fuel on behalf of other market participants and buy-resell transactions for short-term profits.
4. Purchases and sales to substitute the use of Member-owners' higher cost resources with lower cost market alternatives (if the transactions produce positive margin without exceeding risk tolerance levels).
5. Forward purchases and sales of transmission and transmission rights, to meet contractual obligations or dispose of surplus capacity.
6. Spot purchases and sales of capacity/energy/fuel to meet Members load.

Activities that are not included in the approved list of Authorized Trading Activities are prohibited, unless approved explicitly by a participating Member(s) or the ROC.

2.2.4 Member Subscription Process

All NCPA transactions must have full subscription by Members prior to execution for forward transactions. This subscription can be full or partial. Some Members may choose to delegate all trade/transactions to the NCPA or may elect to participate in trades/transactions conditional to prior approval on a trade-by-trade basis.

Appendix I describes the procedures for the subscription process.

3.0 Trade Authorization, Limits and Controls

A business process specifying the authority vested at various levels of NCPA is required to prudently manage trading and procurement activities. The NCPA Commission, made up of representatives from Member utilities, is vested with the overall authority of the organization. The Commission establishes the overall limits and controls for the NCPA and delegates trade and transaction authority through the General Manager who further delegates' trade and transaction authority to staff.

Authority to transact power-related products is delegated by the NCPA Commission for the express purpose of managing each Member's portfolio in accordance with the Member's objectives and instructions. Trade and risk management staff is performing their daily activities within the constraints and authorization given to them:

- By the NCPA Commission (delegated through the General Manager who further delegates through staff);
- Guided by the ROC and the interim trade and risk policies, processes and procedures (3Ps); and
- Subject to Individual Member utility's direction.

NCPA staff is authorized to execute transactions of power-related products in conformance with this Interim 3P document including the procedures required by the Member Subscription Process.

3.1 Members' Authority and Authorization

Authority for trading originally rests in the hands of a Member utility's governing board, council, or other such responsible body. Each Member will receive delegated authorities and limitations from their governing body. The extent and conditions of this authority and the individuals to which this is delegated shall be communicated in writing to NCPA and include any delegation limitations. ***Members will have 90 days to obtain such an authorization from the date this Interim Policy is approved by the NCPA Commission.***

For transactions conducted on behalf of Members directly or indirectly through the NCPA, Members, through their authorized individuals, exercise their trading authority:

- through the Member Subscription process;
- by delegating their trading authority in writing to NCPA for specific types of transactions and/or duration, or
- by choosing the full portfolio management service option from NCPA.

Members will be required to complete a Trade Authorization Form documenting their individual authority and providing NCPA with the desired level of authorization.

3.2 Authorized Transacting Individuals

Appendix II, as updated from time to time by the General Manager lists personnel who are authorized to execute power-related transactions on behalf of a participating Members in strict conformance to the Member's objectives and/or specific direction provided by the Member.

3.5 Controls and Procedures

3.5.1 Functional Responsibilities

The auditing controls and procedures are structured on the premise that the following functional responsibilities are being developed within NCPA's organization:

- **Front Office Function:** performs actual trading/transacting with counterparties and is responsible for Control and Compliance Procedures and Processes together with the Mid Office.
- **Mid Office Function:** responsible for management oversight including; risk measurement, transaction verification, trade/risk review and reporting. The Mid Office is responsible for Control and Compliance Procedures and Processes together with the Front Office.
- **Back-Office Function:** provides the checks and balances of the risk management program, keeps records and approves bills and invoices. The Back Office functions include monitoring, documentation, trade/transaction execution and reporting.
- **Portfolio Management Function:** will be responsible for determining and executing trading strategy, active trading management (focused on meeting Members' defined objectives), ensuring activities meet all trading risk management measures and that they proceed in accordance with the trade and risk policies, processes and procedures (3Ps).
- **Risk Management Function:** represents the function that ensures that the organization's trading activities remain within accepted tolerance levels and that the risk management strategy is executed properly. This function tracks the corporate portfolio, evaluates it against the changing market, and suggests counter measures to balance corporate risk.

In the interim, the activities of the Front, Mid and Back Offices will not be distinctly separate functions, rather, there will exist a large degree of overlap and sharing of responsibilities by the staff involved. These functions will evolve into administratively and functionally separate operations as NCPA trading and risk management needs increase.

Similarly, the function of Risk Management will be a shared responsibility between individuals performing Portfolio Management and Risk Management functions and the ROC.

3.5.2 Record Keeping

NCPA Front and Back Offices are responsible for development, filing and maintenance of transaction related records. Front Office staff is responsible for generating all documentation for each transaction and forwarding such documentation to the Mid and Back Offices. Back Office staff is responsible for maintenance and filing of such documentation.

3.5.3 Transaction Tracking

Whenever NCPA Front Office staff initiates and executes transactions on behalf of Members, NCPA Front Office staff shall complete required transaction tracking forms as described in Appendix IV. Completed forms, along with executed original contracts or other counterparty confirmation documentation shall be forwarded to the NCPA Mid Office upon trade execution.

Whenever an NCPA Member initiates and/or executes transactions to be implemented by NCPA, such NCPA Member shall complete required transaction tracking forms as described in Appendix V. NCPA Members shall forward completed tracking forms along with executed original contracts or other counterparty confirmation documentation to NCPA Front Office staff

for implementation. NCPA Front Office staff shall forward forms and original documentation to the NCPA Mid Office upon trade execution.

NCPA Mid Office staff shall review daily-submitted transactions tracking forms, executed contracts and counterparty confirmations for completeness, compliance with trading limits, and to ensure transactions are with approved counterparties. Exceptions are to be reported immediately to the NCPA Front Office and to the ROC weekly. Front Office staff shall be notified whenever levels are within 90% of acceptable limits, or if the next transaction is expected to exceed acceptable limits.

3.5.4 Transaction Implementation

NCPA Front Office staff shall implement, track, and account for physical and financial transactions utilizing NCPA approved scheduling and Risk Management systems.

3.5.5 Transaction Verification

NCPA Mid Office staff shall verify executed physical transactions with counterparties. Verifications of physical transactions shall be completed within five (5) business days following the end of the month in which products were purchased or sold. Verifications shall include monitoring of trades for trade and risk policies, processes and procedures (3Ps) compliance with contractual commitments.

3.5.6 Transaction Billing and Payment

NCPA Mid Office shall provide verified transaction data to NCPA Back Office for billing and payment of transactions with counterparties. The Back Office shall invoice or pay counterparties only upon receipt of verified transaction data from the Mid Office.

- NCPA Accounts Receivable staff shall invoice counterparties within two (2) business days of receipt of verified transaction data.
- NCPA Accounts Payable staff shall pay invoices received from counterparties in accordance with executed counterparty agreements.

3.5.7 Failed/Disputed Transactions

Any transaction not verified within the time specified in the Transaction Verification Process shall be reported as a failed transaction. Failed transactions shall include disputed amounts and transactions that did not meet the terms of executed contracts. Industry standard dispute procedures, such as WSPP arbitration procedures, should be utilized unless otherwise required by contract. Failed transactions shall be reported to the ROC weekly by the Mid Office.

3.5.8 Reporting

NCPA Mid and Back Office staff shall prepare daily, weekly, and monthly reports for distribution to the ROC, General Manager, Front, Mid and Back Office managers. Report formats shall be approved by the ROC and, at a minimum; contain information adequate to update the credit worthiness of counterparties, status of trades, and compliance with trading and risk limits.

4.0 Credit Risk

4.1 Credit Policy

NCPA will diversify its portfolio through engaging multiple trade partners or conducting trade through the California Power Exchange or California Independent System Operator.

NCPA will not knowingly participate in long chain or sleeve transactions.

NCPA will use a risk adverse approach and avoid transacting with counterparties that are receiving bad press or whose credit status is known to be on watch by any organization.

New contracts need to have a condition that allows the NCPA to terminate (be released from future obligations) the transaction or to seek immediate payment for all outstanding and expected future payments if a counterparty's credit situation falls below minimum standards. For long-term contracts, the NCPA should secure a condition to allow it to determine how much advance payment is required for it to continue to honor the contract at the lower credit rating.

At NCPA's sole discretion a counterparty may be required to provide some combination of prepaid estimated billings, escrow deposits, minimum balance requirements, irrevocable letter of credit, or a corporate guarantee.

4.2 Definition of Credit Risk

Credit risk is the risk of financial loss that results from the failure or unwillingness of a counterparty to fulfill its obligation to make payment or delivery on a contract.

Credit default loss is the potential loss that may result from credit risk exposure; which is a measure of the susceptibility of an organization to credit risk.

Credit risk is closely related to, and often dependent upon market risk. As market risk increases, so too does credit risk.

For the NCPA, credit risk can arise from its trade relations with the following entities:

1. Counterparties – through an inability or unwillingness to fulfill financial or physical delivery obligations with NCPA.
2. Members – through their individual contracts, counterparties or trading activities
3. Third parties – through a transference of market risk.

4.3 Predication of the Credit Risk Policy

The credit risk management function is predicated on the premise that both perceived contract value and potential credit risk must be considered before achieving contract approval and are based on the following principles:

1. Recognition that the NCPA is a public entity that represents Members who are also public entities, who have unique legal and regulatory privileges and are encumbered with specific obligations related to their individual operations;
2. Minimization of credit and administrative risks to the NCPA and its counterparties; and
3. Providing services at the lowest cost consistent with minimization of credit and administrative risks.

All transactions will be evaluated on their individual credit merits and on the integration of each transaction into the total portfolio, i.e. that is the transactional credit risk and the aggregated total portfolio credit risk.

Avoiding or mitigating credit risk has a monetary value and potential associated costs.

4.4 Interim Guideline for Qualifying Trading Partners

Under no circumstance can a transaction be completed with a trading partner with a credit rating below the approved level credit rating. Minimum approved credit ratings are at least one of the following:

Private Entities

	Dun & Bradstreet	Fitch IBCA	Standard & Poor's	Moody's
Current trading partners with no ill history *	3A	A	A	A
New partners* and previous counterparties	4A	AA	AA	Aa
Short term transactions (less than one month)	2A	BBB	BBB	BBa

Public Entities and California Utilities**

	Dun & Bradstreet	Fitch IBCA	Standard & Poor's	Moody's
All Transactions	2A	BBB	BBB	BBa

* Counterparties with whom the NCPA has not transacted business in the past 12 month are considered "new partners".

** NCPA Pooling Members who own resources are deemed to meet the minimum credit requirements.

Where a trading partner does not meet the minimum credit requirements; a security or performance bond, escrow deposit (example one-month's expected average billing), an irrevocable letter of credit, a corporate guarantee from an acceptable parent holding company or some combination of the above will be required.

Staff may recommend that counterparties not meeting the required credit rating be given special consideration by the ROC if such counterparties have resources, market history, stature or financial position that justifies treatment outside of these guidelines.

New counterparty transactions should be limited in term and amount until comfort is built with respect to performance for at least the first twelve months of trading.

All new counterparties must supply bank references and three (3) client references.

Maximum credit risk exposure should not exceed \$100,000 for each trading partner.

Because of the nature of electricity sales, and the dollar value of typical NCPA purchases and sales, the NCPA must exercise caution and predispose itself to deal only with entities with very high credit ratings. When a counterparty is not highly rated, caution should be used and purchases or sales should be of minimum quantities. Actual approval of quantities, terms and prices will be based on a decision-making matrix that allows for:

- Trading partner credit rating;
- Contract terms and conditions;
- Contract length; and
- Contract cost.

Where a counterparty is fully or partially supported by a performance bond, the rating of the underwriter's financial strength shall be a minimum of A.M. Best "A" Rating or equivalent. The existence of insurance may make entering into a transaction with a low rated counterparty more feasible/acceptable.

Appendix III includes a list of Currently Authorized Counterparties and corresponding trading limits. This list will be updated from time to time and approved by the ROC and the General Manager.

4.5 Implementation Guidelines

Qualification/rating of trading partners is based on information furnished by other rating agencies, the counterparties themselves, and other reputable sources of industry information. NCPA does not, and will not, perform an audit in connection with any rating opinion and on occasion may use unaudited financial information.

Ratings are a dynamic function and may be changed, suspended or withdrawn as a result of changes in, or unavailability of such information or based on other circumstances such as transaction performance.

When entering into any transaction, it remains the responsibility of NCPA traders to act prudently and exercise their best judgement based on all available information.

Events of contract non-compliance are to be formally reported (in writing) in a timely manner. Examples of such events are:

- 1) Material non-compliance in regard to credit or escrow requirements:
 - a) Exceeding credit limit by more than 5%.
 - b) Failure to maintain escrow or minimum balance requirements at required levels.
 - c) Failure to supply continuing proof of compliance with other specific credit requirements in a timely manner, e.g.: updated letter of credit 45 days prior to expiration; audited financial statements; notice of published credit rating changes previously provided; etc.
- 2) Failure to pay a properly submitted bill by the due date.
- 3) Failure to provide required forecasts or metering data in a timely manner.
- 4) Any other adverse event or action that could lead to an out of trust situation if not corrected in a timely fashion.

4.6 NCPA Credit Watch List

NCPA will develop a Credit Watch List to record the performance, or non-performance of trading partners, in their obligations to NCPA. The Credit Watch List will also include potential trading partners who are suffering adverse effects from market movements

The Credit Watch List is a dynamic document that is developed from internal and external information sources.

A counterparty placed on the NCPA Credit Watch List may be removed from the NCPA Credit Watch List not sooner than three (3) months after being placed thereon. The NCPA Credit Watch List will be submitted to the ROC whenever it is updated.

4.7 Credit Risk and Members

Members contracts/transactions with third parties assigned to the NCPA must meet minimum NCPA credit risk requirements.

Members' transaction/contract activities with third parties and assigned to the NCPA must be included in the total exposure measurements.

Members must inquire/consult with the NCPA prior to committing to transactions/contracts in order to ensure that minimum credit risk requirements have been met.

4.8 NCPA External Credit Rating

Just as NCPA rates external trading partners, external trading partners will rate the NCPA.

In an industry highly focused on issues of credit, a high and stable credit rating is desirable and has market value. A good credit rating attracts better prices, terms and conditions. An organization's good credit rating has a dollar value for the trading partners. As such, NCPA must take every action to maintain its good credit rating, including the following:

- Payments will be made on time;
- Issues of improper billing or questions on billing will be addressed immediately;
- Material contract dispute will be brought to the attention of the ROC and the General Manager in a timely fashion; and
- The NCPA will ensure good cash flow (possibly through the establishment of a line of credit or reserve fund to ensure that timely payment can be made).

4.9 Conflict of Interest

NCPA personnel who may influence trading decisions must report any conflict of interest with qualifying counterparties. The ROC may prohibit such personnel from participating in trade related decisions/activities with the said counterparty.

Appendix I – Subscription Process

NCPA Resources

For NCPA resources under the Facilities Agreement, Members have rights and obligations to specify participation in sale/purchase transactions, exercise Right-of-Refusal, and may unilaterally make a purchase/sale with counterparties and/or NCPA Members.

The Right-of-Refusal process will be implemented in the following sequence for sale of Member-owned resources:

- 1) NCPA will notify Member-owners of any NCPA initiated sale of capacity/energy from any Member-owned generating plant(s).
- 2) Member-owners may elect to:
 - a) not participate;
 - b) subscribe to their ownership share of the sale;
 - c) participate at less than their ownership share of the sale; or
 - d) exercise their First Right-of-Refusal to purchase at the price, terms/conditions of the sale, for all or a portion of the available shares of those Member-owners electing to participate in the sale.
- 3) If an NCPA initiated transaction lacks full subscription, the size of the transaction may have to be reduced and/or the Member-owners that choose to participate in the transaction may have to “step up” their participation shares in the transaction.
- 4) If lack of participation causes adjustments in price or requires “step-ups”, participating Member-owners must be informed of the new terms/conditions and given another opportunity to determine their level of subscription.
- 5) The responsibility for a non-subscribing Member will be limited to the provisions in existing contracts/agreements, unless otherwise agreed to by the parties of the respective contracts/agreements.
- 6) Written notification of subscription percentages will be available immediately after the execution of the transaction.

NCPA Initiated Physical Transactions

For all other NCPA initiated physical transactions, Member Subscription decisions are as follows:

- 1) For transactions with duration of one month to one year (Term Transactions):
 - a) Member staff authorized to elect participation will provide positive affirmation of participation level or provide written delegation of authority with any trading limitations/instructions to NCPA.
 - b) Each Member will designate from its staff a representative (and alternate(s) in the absence of the primary representative) with the authority to make decisions relating to the Member's participation in NCPA initiated transactions.
 - c) Authorized Member representative may delegate transaction decision-making authority to the NCPA. Such delegation must be in writing including all transaction limitations and special instructions.
- 2) Member Subscription for NCPA initiated physical transactions with duration of less than one month will be based on the following default allocations:
 - a) Transactions requiring SOT and COTP transmission will be allocated hourly based on each Pool Member's hourly surplus capacity of SOT and COTP, respectively. These allocations will be computed after-the fact as part of the Pool's monthly billing procedure
 - b) In-month energy purchases to meet the combined physical and financial requirements of the Members will be allocated in proportion to each Member's total energy deficits during

the periods in which the transactions are in effect. Energy sales will be allocated similarly in proportion to each Member's energy surplus totals.

- c) Allocations of portions of transactions that are not assigned by need, including all arbitrage transactions, will be based on short-term power management percentages.
- 3) Written notification of subscription percentages will be available immediately after the execution of the transaction.

NCPA 1999 Interim Policies, Processes and Procedures

Appendix II – Interim Trade Authorization Levels

Position/Name	Amount	Conditions
1. General Manager Jim Pope	a) For NCPA Pool transactions, individual transactions up to \$40 million and \$10 million per quarter b) For Member specific transactions, up to the Member's limits	a) Up to one-year term b) Term up to Member's limits
2. Assistant General Manager and Portfolio Manager Don Dame Tom Lee	Individual transactions up to \$5 million in value	Transactions of not more than twelve (12) months in duration
3. Chief Dispatcher Alan Parsons	Individual transactions up to \$2,500,000 in value	Transactions of not more than three (3) months in duration
4. Pool Trader (Gas & Electric) Don Imamura Kevin McMahan	Individual transactions up to \$2,500,000	Transactions of one (1) month but not more than three (3) months in duration
5. Daily Scheduler * (Gas & Electric) Kevin McMahan Norm Worthington Don Imamura Ken Goeke	Individual transactions up to \$500,000 and maximum daily limit of \$750,000	Transactions of less than one (1) month
6. Supervisor, Dispatch Operations * Fred Young	Individual transactions up to \$500,000 and maximum daily limit of \$750,000	Transactions of not more than 72 hours in duration
7. Dispatcher * Roy Haver Patricia McCartney Balta Ramirez Tina Sweeney Jana Linkiewicz Michael Brush	Individual transactions up to \$125,000 and maximum daily limit of \$250,000	Transactions of not more than 72 hours in duration
8. Gas Scheduler Dana Griffith	Individual transactions up to \$500,000	Transactions of one (1) year or less

- For emergency operations or unusual market conditions contact Chief Dispatcher or Assistant General Manager for additional authorization if required.

NCPA - Qualified Counterparties

As of December 16, 2005 the following counterparties have been rated for trading with NCPA for the specified maximum amount:

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(Dollars in millions)						Green shade: New Evaluation		Orange shade: Buy only					
Trade Limits for Purchase, Sale & Netting Agreements						Date Last Eval.	Financial Statement Date	Netting	NCPA WSPP	WSPP Trading Partner	Comments		
Counterparty	Active	CRAM Score	CRAM Rating	Credit Rating	Credit Limit								
AEPSC as Agent for Ohio Power & Columbus Southern	Y			BBB	\$ 0.50	3/30/2005	12/31/04 A	Yes			AEP as agent for OPC, SWEPSCO & PSO		
Anaheim, City of, Public Utilities Dept.	N			A+	\$ 0.20	1/5/2005	6/30/04 A	No					
Arizona Public Service	Y			BBB	\$ 0.50	5/26/2005	12/31/04 A	Yes					
Avista Energy, Inc.	Y			N/A	\$ 0.25	5/31/2005	12/31/04 A	Yes			\$1.5 million guarantee from Avista Capital		
Bonneville Power Admin.	Y			AA**	\$ 3.00	3/23/2005	9/30/04 A	No					
BP Energy Company	Y			AA+	\$ 2.00	5/16/2005	12/31/04 A	Yes			500 point deduct for no parent guarantee		
California Dept. Of Water Resources	Y			AA	\$ 1.00	1/6/2005	6/30/04 A	Yes					
Calpine Energy Management, L.P.	Y			B/CCC+	Buy Only	4/1/2005	12/31/04 A	Yes			Declined to provide Deutsche Bank LOC.		
Calpine Energy Services, L.P.	Y			B/CCC+	Buy Only	4/1/2005	12/31/04 A	No			No netting with long-term deliveries.		
CERS (DWR Electric Power Fund)	N			A	\$ 0.20	1/6/2005	6/30/04 A	No					
ConocoPhillips Company	Y			A-	\$ 2.00	5/11/2005	12/31/04 A	Yes					
Constellation Energy Commodities Group, Inc.	Y			A-/BBB+	\$ 2.00	3/18/2005	12/31/04 A	Yes			Elec guarantee expires 12/15/05, gas 12/31/05		
Coral Power L.L.C.	Y			A-	\$ 2.50	10/28/2005	06/30/05 I	Yes			Guarantee from Coral Energy Holdings, Inc.		
Duke Energy Trading & Marketing L.L.C.	Y			N/A	Buy Only	8/5/2004	9/30/03 I	Yes			Request for parent guarantee denied		
Eugene Water & Electric Board	N			AA/A+	\$ 0.20	8/19/2005	12/31/04 A	Yes					
Hetch-Hetchy Water & Power/City&CoSF	N			AA-/A+	\$ 0.20	8/29/2005	6/30/04 A	No					
Idaho Power Company	N			A-/BBB+	\$ 0.20	8/19/2005	12/31/04 A	Yes					
Klamath Falls, City of (Cogeneration Project)	Y			BBB	\$ 0.25	5/26/2005	6/30/04 A	No					
Lassen Municipal Utility District	Y			N/A	\$ 0.02	7/5/2005	6/30/04 A	No			Credit limit \$20 K to allow limited trading.		
Los Angeles Dept. Of Water & Power	N			AA-	\$ 0.20	8/18/2005	6/30/04 A	Yes					
Modesto Irrigation District	Y			A	\$ 0.50	7/5/2005	12/31/04 A	Yes					
Morgan Stanley Capital Group, Inc.	Y			AA-/A+	\$ 3.00	3/17/2005	11/30/04 A	Yes			Guranteed by Morgan Stanley		
Occidental Power Services	Y			A-	\$ 0.40	11/8/2005	12/31/2004	Yes			Limited trading. Waiting on guarantee.		
PacifiCorp	Y			A-/BBB+	\$ 1.50	11/29/2005	3/31/05 A	Yes			Credit reduced due to corporate aggregation.		
Portland General Electric	Y			BBB	\$ 2.00	3/18/2005	12/31/04 A	Yes			Owned by Enron		
Powerex	Y			AA-	\$ 3.00	11/28/2005	3/31/05 A	Yes			BC Hydro guarantee renewed to 12/31/05		
PPM Energy, Inc.	Y			A-	\$ 1.50	1/7/2005	3/31/04 A	Yes			PacifiCorp Holdings guarantee exp 5/31/06		
PUD No 1 of Snohomish County	N			A+	\$ 0.20	8/29/2005	12/31/04 A	Yes					
PUD No. 1 of Chelan County	N			AA	\$ 0.20	8/29/2005	12/31/04 A	Yes					
PUD No. 2 of Grant County	N			AA	\$ 0.20	9/29/2005	12/31/04 A	Yes					
Puget Sound Energy, Inc.	Y			BBB/BBB-	\$ 1.00	7/5/2005	12/31/04 A	Yes					
Redding, City of	N			A-	\$ 0.20	8/19/2005	6/30/04 A	Yes					
Riverside, City of	N			A+	\$ 0.20	1/5/2005	6/30/04 A	Yes					
Sacramento Municipal Utility District	Y			A	\$ 3.00	5/10/2005	12/31/04 A	Yes					
Salt River Project	N			AA	\$ 0.20	11/28/2005	4/30/05 A	Yes					
San Diego Gas & Electric	Y			AA-/A	\$ 2.00	3/24/2005	12/31/04 A	Yes			Credit reduced due to corporate aggregation.		
Santa Clara, City of (SVP)	Y			A	\$ 0.60	8/5/2005	6/30/04 A	Yes			City of Santa Clara Electric Department		
Seattle City Light	Y			AA-	\$ 1.60	5/16/2005	12/31/04 A	Yes					
Sempra Energy Trading Corp.	Y			A/BBB+	\$ 1.50	3/24/2005	12/31/04 A	Yes			Credit reduced due to corporate aggregation.		
Shasta Lake, City of	N			BBB	\$ 0.20	7/5/2005	6/30/04 A	No					
Shelter Cove (Resort Improvement Dist No.1)	Y			N/A	\$ 0.50	9/19/2005	6/30/04 A	No					
Tacoma, City of dba Tacoma Power	Y			AA-/A+	\$ 1.00	6/29/2005	12/31/04 A	Yes			Tacoma Power		
Truckee Donner PUD	N			N/A	\$ 0.20	8/29/2005	12/31/04 A	No					
Turlock Irrigation District	Y			A+	\$ 1.00	7/5/2005	12/31/04 A	Yes					
Western Area Power Administration	Y			AA**	\$ 2.00	8/4/2005	9/30/04 A	Yes			WAPA-Sierra Nevada Region		

** Implied rating \$ 42.92 Aggregate Total

Appendix IV: Transaction Tracking Form - NCPA Initiated Trade

NCPA Deal Control Schedule

1. Deal Number:	_____																		
2. Deal Type:	Purchase / Sale	Energy / Transmission / Capacity / Call Option / Cash Out	Financial / Physical																
3. Contract - Product:	WSPP _____	NCPP _____	Other _____																
4. Participating Members:	_____																		
5. Term:	_____ (Example: Jan 99, Q2 99, Annual 99)																		
6. Shape:	On-Peak / Off-Peak	7x24 / 7x16 / 6x16 / 6x8 / Other _____																	
7. Delivery/Transaction Point:	_____																		
8. Pricing:	Index _____	ISO ExPost _____																	
	Fixed _____	Premium / Option _____																	
	PX + _____	Other _____																	
9. Description:	_____ _____ _____																		
10. Notes:	_____ _____ _____																		
11. Counter Party Information:	<table border="0"> <tr> <td><u>Contract Implementation</u></td> <td><u>Billing</u></td> </tr> <tr> <td>Company _____</td> <td>Company _____</td> </tr> <tr> <td>Contact Name _____</td> <td>Address _____</td> </tr> <tr> <td>Phone _____</td> <td>_____</td> </tr> <tr> <td>Fax _____</td> <td>_____</td> </tr> <tr> <td></td> <td>Attention _____</td> </tr> <tr> <td></td> <td>Phone _____</td> </tr> <tr> <td></td> <td>Fax _____</td> </tr> </table>			<u>Contract Implementation</u>	<u>Billing</u>	Company _____	Company _____	Contact Name _____	Address _____	Phone _____	_____	Fax _____	_____		Attention _____		Phone _____		Fax _____
<u>Contract Implementation</u>	<u>Billing</u>																		
Company _____	Company _____																		
Contact Name _____	Address _____																		
Phone _____	_____																		
Fax _____	_____																		
	Attention _____																		
	Phone _____																		
	Fax _____																		
12. Approvals	<u>Member / Pwr Mgmt</u> Prepared By: _____ Signature: _____ Date: _____	<u>Member / Pwr Mgmt</u> Approval: _____ Signature: _____ Date: _____	<u>Accounting & Finance</u> Audit Review: _____ Signature: _____ Date: _____																

Distribution: Original with Original Contract - Power Accounts Administrator
 Copies - Scheduling and Dispatch, Power Billing Senior Analyst

Appendix V: Transaction Tracking Forms – Member Initiated Trade

NCPA Deal Control Schedule

1. Deal Number:	_____		
2. Deal Type:	Purchase / Sale	Energy / Transmission / Capacity / Call Option / Cash Out	Financial / Physical
3. Contract - Product:	WSPP _____	NCPD _____	Other _____
4. Participating Members:	_____		
5. Term:	_____ (Example: Jan 99, Q2 99, Annual 99)		
6. Shape:	On-Peak / Off-Peak	7x24 / 7x16 / 6x16 / 6x8 / Other _____	
7. Delivery/Transaction Point:	_____		
8. Pricing:	Index _____ Fixed _____ PX + _____	ISO ExPost _____ Premium / Option _____ Other _____	
9. Description:	_____ _____ _____		
10. Notes:	_____ _____ _____		
11. Counter Party Information:	<u>Contract Implementation</u> Company _____ Contact Name _____ Phone _____ Fax _____	<u>Billing</u> Company _____ Address _____ _____ _____ Attention _____ Phone _____ Fax _____	
12. Approvals	<u>Member / Pwr Mgmt</u> Prepared By: _____ Signature: _____ Date: _____	<u>Member / Pwr Mgmt</u> Approval: _____ Signature: _____ Date: _____	<u>Accounting & Finance</u> Audit Review: _____ Signature: _____ Date: _____

Distribution: Original with Original Contract - Power Accounts Administrator
 Copies - Scheduling and Dispatch, Power Billing Senior Analyst

RESOLUTION NO. 2006-19

A RESOLUTION OF THE LODI CITY COUNCIL
APPROVING THE CITY OF LODI ENERGY RISK
MANAGEMENT POLICIES

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby approve the City of Lodi Energy Risk Management Policies, as shown on Exhibit A attached hereto and made a part of this Resolution.

Dated: January 18, 2006

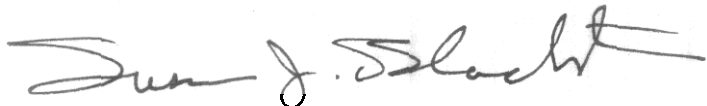
I hereby certify that Resolution No. 2006-19 was passed and adopted by the Lodi City Council in a regular meeting held January 18, 2006, by the following vote:

AYES: COUNCIL MEMBERS – Beckman, Hansen, Mounce, and
Mayor Hitchcock

NOES: COUNCIL MEMBERS – Johnson

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None



SUSAN J. BLACKSTON
City Clerk

City of Lodi
Energy Risk Management Policies

January 7, 2006

Purpose:

The purpose **of** the Risk Management Program is to ensure that risks associated with Lodi's bulk power procurement program are properly identified, measured and controlled.

Scope:

The policies are to be applied to all aspects of Lodi's wholesale procurement and sales activities, long-term contracting associated with energy supplies, capital projects and associated financing documents related to generation, transmission, transportation or storage, and participation in Joint Powers Agencies (JPA's).

These policies do not address the following types of general business risk, which are treated separately in other official policies, ordinances, and regulations of the city: fire, accident and casualty, health, safety, workers compensation and other such typically insurable perils.

Risk Management Program Strategies:

1. Identify, measure and control risks that would have an adverse affect on retail rate stability
2. Assign risk management responsibilities to appropriately qualified individuals and committees

Risk Management Program Objectives:

1. Maintain a regularly updated inventory of Lodi's Bulk Power Procurement Program risks
2. Establish risk metrics and reporting mechanisms that provide both quantitative and qualitative assessments of potential impacts to rate stability
3. Adopt business practices that encourage development of appropriate levels of operating reserve funds, contribute to retail rate stability and maintain appropriate security **for** established funds

Risk Inventory:

Lodi Electric must inventory and address the following categories of risk as a component of the monitoring and reporting under the risk management program:

- Price Risk
- Credit Risk
- Operational Risk
- Contingent Liabilities

Price Risk – Price risk is the risk that wholesale prices may increase relative to open position needs and/or long term supply contracts may move “out of the money”, or become unprofitable **or** costly in comparison to prevailing price levels.

Credit Risk – Credit risk is the risk associated with entering into any type of transaction with another counterparty and is generally segmented into the following five categories:

1. Trading Counterparties and retail customers fail to pay for energy delivered
2. Trading counterparties and/or wholesale suppliers fail to deliver contracted for energy
3. Trading counterparties fail to take delivery of energy sold to them, necessitating a quick resale elsewhere, likely at a **loss**
4. Counterparties may refuse to extend credit or charge a premium for credit risks
5. Counterparty transactions are too concentrated among a limited number of suppliers

Operational Risk – Operational risk consists of the potential to effectively plan, execute or control business activities. Operational risk includes the potential for:

1. Inadequate organizational infrastructure, i.e., the lack of sufficient authority to make and execute decisions, inadequate supervision, absence of internal checks and balances, incomplete and untimely planning, incomplete and untimely reporting, failure to separate incompatible functions, etc.
2. Absence, shortage or **loss** of key personnel
3. Lack or failure of facilities, equipment, systems and tools such as computers, software, communications links and data services;
4. Inability to finance capital projects or meet financial obligations incurred in the course of wholesale operations;
5. Exposure to litigation or sanctions as a result of violating laws and regulations, not meeting contractual obligations, failure to address legal issues and/or receive competent legal advice, not drafting contracts effectively, etc.
6. Errors or omissions in the conduct of business, including failure to execute transactions, violations of guidelines and directives, etc.

Contingent Liabilities – contingent liabilities consist of liabilities that Lodi could incur in the event of the failure of other parties to discharge their obligations. At present, these consist of three principle categories:

1. Guarantees and step up provisions in the enabling agreements for the Joint Powers Agencies (JPAs) of which the city is a member
2. Project closure, decommissioning, environmental remediation and other obligations which result from Lodi's own activities and from JPA projects and activities;
3. Provisions for take or pay, termination payments and/or margin calls in the city's long-term electric power supply agreements.

Prohibited and Authorized Transaction Types:

Prohibited Transaction Types

Speculative buying and selling of energy products is prohibited. Speculation is defined as buying energy that is not needed for meeting forecasted load, selling energy that is not owned and/or selling energy that is not surplus without simultaneously replacing that

energy at a lower cost. In no event shall transactions be entered into to speculate on market conditions.

Approved Transaction Types

1. Purchase energy to serve load above what is expected to be generated **or** purchased from existing resources.
2. Sell existing capacity **or** energy that is expected to be in excess of Lodi's load serving obligations
3. Purchase gas that is expected to be needed to fuel owned plants
4. Sell **surplus** gas if more economic energy is available for purchase
5. Execute financial transactions to fix the price of variable commodity purchases or sales
6. Purchase simple call options to limit price exposure on short gas or electricity positions
7. **Sell** simple call options or tolling agreements on capacity that is expected to be in excess **of** Lodi's load serving obligations
8. Purchase emissions allowances deemed necessary for efficient operations **of** owned generating facilities
9. Purchase or sell **firm** transmission rights to manage congestion price risk
10. A purchase/sale of energy at the California Oregon Border and a sale/purchase of energy at NP15 to take advantage of Lodi's transmission capacity
11. A purchase of natural gas and a sale of energy to take advantage of excess **gas** fired peaking capacity
12. A sale of natural gas and a purchase of electricity to take advantage of market heat rates below NCPA gas fired generation.

Transactions that are not included in the Approved Transactions Type list are prohibited; unless explicitly approved by the City Council.

Energy Risk Management Roles, Responsibilities and Organization:

City Council

The City Council is responsible for making high-level, broad policy and strategy statements as contained in the Energy Risk Management Policy document. The City Council adopts the Energy Risk Management Policies as developed and recommended by the Risk Oversight Committee and delegates the City Manager to execute it. The City Council will review the Energy Risk Management Policy every year. Additionally, the City Council shall receive reports quarterly from the City Manager regarding risk management activities. These reports will be provided to the Council within six weeks after the end of each calendar quarter.

City Manager

The City Manager has overall responsibility for executing and ensuring compliance with policy adopted by the City Council. The City Manager reports quarterly to the City Council regarding energy risk management activities.

Risk Oversight Committee (ROC)

The ROC shall include as voting members, the City Manager, Assistant City Manager, City Attorney and the Electric Utility Director; or in the case of their absence, their designees. The City Manager shall appoint the chair of the ROC. Additional non-voting members may be invited to participate on the ROC based on supporting expertise required by the ROC.

The ROC shall meet not less than once per month, or as otherwise called to order by the City Manager or City Council. The ROC shall keep minutes of all meetings and business transacted and shall appoint one of its members to perform this task. A quorum for the ROC to do business shall consist of all members or their designees. The ROC shall request attendance at its meetings by, and/or reports from, other persons as appropriate. The City Manager shall make regular reports to the City Council regarding business transacted by the ROC at such intervals and/or upon such occasions as the Council shall direct.

The ROC shall have the responsibility for ensuring that business is conducted in accordance with the Energy Risk Management Policies (ERMP). The ROC shall from time to time, adopt and bring current risk management business practices, defining in detail the internal controls, strategies and processes for managing **risks** associated with the adoption of those business practices. The ROC shall recommend to the City Council the categories of transactions permitted and **set risk** limits for those transactions. The ROC, with the approval of the City Manager, shall confirm the assignment **of** authority to execute wholesale trading transactions, and administer retail accounts, supply contracts, capital projects and JPA relationships.

Electric Department

The Electric Department shall participate on the ROC through the Electric Utility Director. The Electric Utility Director shall provide load forecast information and coordinate the receipt and dissemination of relevant market and transactional information undertaken on **Lodi's** behalf through NCPA.

Finance Department

The Finance Department shall participate **on** the ROC through the Assistant City Manager and provide accounting and cash flow information to the ROC.

Legal Department

The Legal Department shall participate on the ROC through the City Attorney and provide legal advice and representation and ensure that business **is** canied out in compliance with all applicable laws, regulations and executive court orders.

Reporting

Quarterly reports shall be provided to the City Council, which provide detail on the City's forward purchases, market exposure, credit exposure, transaction compliance and other relevant data.

Quarterly Reports shall include:

- Load and Resource balances as forecast and adopted in the current operating **years** budget
- Load and Resource balances as adjusted due to operating conditions or purchases occurring during the quarter
- An assessment of market exposure
- An assessment of the quarterly change in power supply cost from budget
- Credit Exposure by counterparty
- A summary of any purchases made during the quarter
- An assessment of any counterparty credit problems

Transaction Limits and Controls

For transactions executed on behalf of Lodi through NCPA, trade authorization levels, counterparty credit limits and minimum counterparty rating criteria shall be as described in NCPA's "Trade and **Risk** Management 1999 Interim Policies, Processes and Procedures (RMPP)", which are made a part of this document, and attached hereto.

Material changes to NCPA's RMPP shall be reported to the City Council as part of the quarterly reporting under Lodi's Energy **Risk** Management Policy.

For transactions executed on behalf of Lodi through NCPA, the City Manager and the Electric Utility Director shall have the authority to direct NCPA to enter into purchase agreements under authority granted by the City Council, by Resolution. The Resolution shall specify the limits of the authority delegated, including the maximum dollar amount of the authority and the duration of the contracts and/or transactions that may be executed under the delegation of authority.

Because NCPA cannot enter into agreements on behalf of pooling members for longer than one year, power supply contracts that have terms longer than one year, or that begin delivery more than one year into the future must be executed directly by Lodi.

For transactions executed directly by Lodi, the City Manager and the Electric Utility Director shall have the authority to enter into purchase agreements under authority granted by the City Council, by Resolution.

The Resolution shall specify the limits of the authority delegated, including the maximum dollar amount of the authority and the duration of the contracts and/or transactions that may be executed under the delegation of authority.

Any resolution delegating authority to the city manager to contract for electricity shall specify generally at least the following terms and conditions and the description of energy and energy services to be procured, including, but not limited to, on-peak and off-peak energy and ancillary services; term, specifying a not-to-exceed period of time; period of delivery denoted in years or months; and point of delivery on the locus on the interstate transmission system on which the delivery is made.

Any delegation of authority to contract for gas shall specify generally at least the following terms and conditions; quantity and the description of gas services to be procured, including but not limited to scheduled gas and gas transportation services, specifying a not-to exceed period of time; period of delivery denoted in years or months or years and months; and point of delivery of the locus on the interstate transmission system at which the transfer of title is made.

For contracts executed directly by the City, the City shall **use** standardized form contracts for the procurement of gas and electricity, as practicable, including, but not limited to form contracts created and copyrighted by the Edison Electric Institute, the Western States Power Pool, and the North American Energy Standards Board. Unless waived by resolution of the City Council, a counterparty shall obtain and maintain during the term of the contract, the minimum credit rating established as of the date of award of the contract of not less than a BBB- credit rating established by Standard and Poor's and a Baa3 credit rating established by Moody's Investors Services.

All procurement of gas and electricity by contract shall conform to the requirements of the Energy Risk Management Policies.

Compliance

Compliance exceptions are actions, which violate the authority limits, requirements or directives set forth in the Energy **Risk** Management Policy. All exceptions shall be reported immediately to the City Manager and quarterly to the City Council in the quarterly exception report.

Willful violations of the Energy Risk Management Policy will be subject to review and may be cause for discipline or dismissal.